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In the Claims

1. (original) A method including a step (a) of using a logical track mapping of first and second non-coaxial track sets so as to optimize a headswitch seek within each of many intermediate logical cylinders identified in the mapping.

2. (original) The method of claim 1 in which the using step (a) includes a step (a1) of determining a preliminary inter-set offset that is independent of any data taken while urging the actuator against a crash stop.

3. (original) The method of claim 1 in which the using step (a) includes steps of:
(a1) determining a preliminary mapping based on an arithmetic combination of several measurements; and
(a2) using the preliminary mapping to take several additional readings from which the logical track mapping is derived.

4. (original) The method of claim 1 in which the using step (a) includes a step (a1) of empirically identifying an outermost usable track that is in one of the track sets by detecting that a bias current threshold has been crossed.

5. (original) The method of claim 1 in which the using step (a) includes a step (a1) of deriving at least one first cylinder offset (FCO) value partly based on a logical offset scalar between a left track in the first track set and a right track in the second track set.

6. (original) The method of claim 1 in which the using step (a) includes a step (a1) of defining the mapping so that a first track is adjacent to the first track set, so that a second track is adjacent to the second set, so that the first and second tracks are within a predetermined logical cylinder having a suboptimal headswitch seek, and so that the first and second tracks logically overlap.

7. (original) The method of claim 1 in which the using step (a) includes a step (a1) of deriving at least one first cylinder offset (FCO) value partly based on a padding value that is partly based on a thermal variation specification.

8. (original) The method of claim 1 in which the using step (a) includes a step (a1) of using a logical-to-physical track offset.

9. (original) The method of claim 1 in which the using step (a) includes a step (a1) of storing a configuration parameter of the mapping into a nonvolatile storage location.

10. (original) The method of claim 1 in which the using step (a) includes a step (a1) of installing onto a base first and second pre-written discs so that the first disc contains the first track set which has a first central axis, so that the second disc contains the second track set which has a second central axis, and so that the first and second central axes are parallel and offset by several times more than a nominal track width.

11. (original) The method of claim 1 in which the using step (a) includes a step (a1) of storing a first portion of a file just before a headswitch operation and a second portion of the file just after the headswitch operation.

12. (original) The method of claim 1 in which the using step (a) includes a step (a1) of positioning a crash stop so that an actuator can contact the crash stop while at least one head supported by the actuator is not over any track, and so that the actuator can move away from the crash stop so as to access one of the track sets.

13. (original) The method of claim 12 in which the using step (a) includes a step (a1) of storing a configuration parameter of the mapping into a nonvolatile storage location.

14. (original) The method of claim 1 in which the using step (a) includes steps of:

(a1) installing onto a base first and second pre-written discs so that the first disc contains the first track set which has a first central axis, so that the second disc contains the second track set which has a second central axis, and so that the first and second central axes are parallel and offset by several times more than a nominal track width;

(a2) installing onto the base a rotary actuator having first and second heads so that the first head can access the first track set, so that the second head can access the second track set, and so that the heads are not equidistant from a rotational axis of the actuator relative to the base;

(a3) positioning a crash stop so that the actuator can contact the crash stop while at least one of the heads is not over any track;

(a4) defining the mapping to include both a first logical track range R_1 and a first logical-to-physical track offset O_1 defined relative to the first disc so that R_1 consists of many logical tracks each having a logical track number X and a physical track number equal to $X + O_1$;

(a5) further defining the mapping to include both a second logical track range R_2 and a second logical-to-physical track offset O_2 defined relative to the second disc so that R_2 consists of many logical tracks each having a logical track number Y and a physical track number equal to $Y + O_2$;

(a6) storing the logical-to-physical track offsets O_1 and O_2 into a nonvolatile storage location;

(a7) applying the mapping in a normal operating mode by using at least one of the logical-to-physical track offsets when performing a headswitch operation; and

(a8) storing a first portion of a file just before the headswitch operation and a second portion of the file just after the headswitch operation.

15. (withdrawn) A method including a step (a) of executing a logical track mapping so that a "right" logical track X on a "right" data surface logically spans a "left" logical track X radially on a "left" data surface and so that a nominal track width is at least twice as wide as a logical offset from a mean radius of the right logical track X to a mean radius of the left logical track X.

16. (withdrawn) The method of claim 15 in which the using step (a) includes a step (a1) of identifying an outermost usable track by detecting a plurality of consecutively-numbered tracks that are not fully readable, adjacent to the outermost usable track.

17. (withdrawn) The method of claim 15 in which the using step (a) includes a step (a1) of applying the mapping in a normal operating mode.

18. (withdrawn) The method of claim 15 in which the using step (a) includes steps of:
(a1) determining a preliminary mapping based on an arithmetic combination of several measurements; and
(a2) using the preliminary mapping to take several additional readings from which the logical track mapping is derived.

19. (original) A device comprising:
a plurality of non-coplanar, substantially non-coaxial track sets; and
a storage element containing a first calibration value of a logical track mapping, the calibration value selected so as to optimize a same-cylinder headswitch seek between the track sets.

20. (original) The device of claim 19, further comprising a controller configured to use the calibration value in a normal operating mode.

21. (original) The device of claim 19, further comprising a rotary actuator having a fixed range of motion.

22. (original) The device of claim 19, further comprising a rotary actuator supporting several heads, each of the heads able to access a respective data surface, each of the data surfaces containing one of the track sets.

23. (original) The device of claim 19, further comprising a crash stop defining a first end of the actuator's fixed range of motion.

24. (original) The device of claim 19 in which the storage element further contains a second calibration value of the logical track mapping, the calibration values also selected so that a predetermined cylinder X includes a "left" track in the first set that logically overlaps a "right" track in the second set, the left track not being optimized for use with the right track.